

3. Rescue and Recovery



Introduction

Search is an emergency; missing people nearly always require some degree of medical care and the longer they are lost, the less likely they are to survive.

Activities

Ages 10 ½ - 14 ½ years (e.g. Scouts and Guides)

When you find casualties, you are responsible until help arrives:

- Show how to open an airway, give CPR and put someone in the recovery position.
- Demonstrate wound care for a range of minor and major cuts.
- Identify hypothermia; know how to prevent and treat it.

Ages 14 ½ years + (e.g. Senior Section, Explorers and Network)

When you find a casualty, you are responsible until help arrives:

- Show how to open an airway, give CPR and put someone in the recovery position. Demonstrate a log role and explain when it's used.
- Deal with major bleeding.
- Identify hypothermia; know how to prevent and treat it.
- Carry out a secondary survey.
- If possible practice these skills in a rural environment and transport the casualty by stretcher, improvise if needed.



From Hill to High Water™



Equipment

Basic training first aid kit (equipment can have been previously used for training or be out of date for practice sessions) – bandages, pads, tape, plasters, triangular bandages, space blanket, pen and paper. Resusi Annie. A stretcher or materials to improvise.

First aid knowledge – **Below are refresher notes only for qualified 1st Aiders and are not comprehensive nor designed to replace formal**

training from accredited organisations. Some information can be obtained from an up to date first aid manual from a recognised organisation such as The Red Cross, St. John's Ambulance and St Andrew's First Aid. Information can also be found on the internet from the NHS about current 1st Aid treatments along with up to date recommendations for resuscitation guidelines from the Resuscitation Council UK.

Preferably get a qualified 1st Aid Instructor to assist you with this module.

At times of major emergencies such as during the COVID-19 Pandemic what are regarded as normal 1st Aid procedures for CPR and "casualty" contact will change dramatically, rapidly, and continuously as more understanding of the dangers become better determined.

Setup

Easily managed in patrol sized groups with people working in 2s or 3s within that group. Patrols could move around bases for each activity or could be faced collectively with a scenario where two or three 'casualties' are found and need to be treated. One of the casualties could be a Resusi Annie doll. If time allows, both methods could be used; learning sessions followed immediately or later by a scenario to test what's been learnt.

Further information

You're on your own

Rescue often happens in locations inaccessible by road. There can be delay for ambulance services to reach you. Search teams are responsible for providing initial first aid and then managing the ongoing situation until hand over can be made.

Recovery may require rescuers to move casualties by stretcher to prevent exhaustion or deterioration.

Primary Survey

Aim: to detect and treat immediately life-threatening problems.

At any time during the Primary Survey the casualty has no cardiac output go straight to CPR

Often the Primary Survey is remembered by using the acronym DRABC but at KSAR we use the more extended acronym DR<c>ABCDE

D = Danger : Check for any danger to both the casualty and to you

R = Response : If there's a response get help and treat any injuries. If the casualty is alert, you need to ask for consent to assess them.

You may also be faced with a casualty that has a Catastrophic haemorrhage and this injury will need to be dealt with urgently as they don't have much time.

<c> = Catastrophic haemorrhage (Big Bleed) : This will be obvious, you won't need to look for it and you will need to act quickly. To manage this you can apply **Direct Pressure** using the casualties own hand, your (gloved) hand or with dressings. **Direct Pressure** aids blood clotting and can be used on both Chest and abdomen injuries as well as on limbs. In certain instances **Indirect Pressure** can also be used and this involves compressing the arterial supply to the bleeding site above the injury. For leg injuries, this is the femoral artery where it crosses the bony pelvis. For arm injuries, this is the brachial artery where it passes between the bicep and the tricep, or in the armpit. **Tourniquets** can also be used to stop catastrophic haemorrhages on limbs but need **special training** to be used correctly. **In KSAR only fully qualified 1st Aid Responders will use these.**

A = Airway : If the casualty is talking to you their airway is open. If the casualty is semi-conscious, snoring or making other odd sounds their airway is at risk. If the casualty is unconscious and therefore unable to maintain muscle control then the airway is obstructed or closed. Potential obstructions could be a foreign body, vomit or liquid or the tongue. Open the airway by using the **head-tilt-chin-lift** method by placing one hand on the casualty's forehead and gently tilting the head back, then lift the chin using 2 fingers only to move the casualty's tongue away from the back of the mouth. If extension of the head is not possible or not desirable such as with a suspected cervical spine injury you can use the **jaw thrust** method. These methods can be taught to you by a qualified 1st Aid instructor.

B = Breathing : Check for breathing for up to 10 seconds by looking to see if the chest rises and falls, what colour are they?, by feeling for breath on your cheek and by listening for breathing sounds. If the person is breathing but unconscious place them in the recovery position, keeping their airway open. If there is no breathing get help and carry out CPR. Ideally you should use a face mask when giving rescue breaths to prevent any cross-infection. If for any reason you are unable to carry out rescue breaths, perform chest compressions continually instead.

From time-to-time guidance on the best ratios for rescue breaths to chest compression changes; always look for the most up-to-date information and ensure you get training support from qualified people.

Recovery position

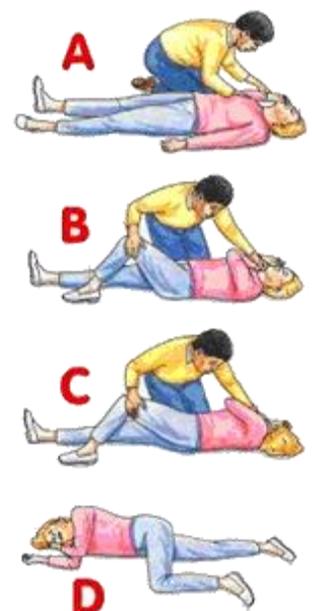
Turn casualty onto their side. Lift chin forward in open airway position and adjust hand under the cheek as necessary to maintain the position.

Check they cannot roll forwards or backwards. Monitor vital signs continuously. If injuries allow, roll to the other side after 30 minutes.

CPR on people aged 8+

Without oxygen brain cells start to die within a few minutes. We can breathe for and pump oxygen around the body by using a combination of chest compressions and rescue breaths.

In cases of sudden Cardiac arrest the oxygen level in the blood remains high for a few minutes so initially chest compressions will be more important than



rescue breaths.

If you are alone and unconsciousness is due to drowning, give five initial rescue breaths then perform CPR for one minute before breaking to call 999.

- Complete 30 compressions at a rate of 100-120 per minute (about the speed of 'Nelly the Elephant' or 'Staying Alive'):
 - Place heel of your hand in the centre of the chest.
 - Place other hand on top and interlock fingers.
 - Keeping your arms straight and your fingers off the chest, press down by four to five centimetres then release the pressure, keeping your hands in place.
- Complete 2 rescue breaths:
 - Ensure the airway is open.
 - Pinch nose firmly closed.
 - Take a deep breath and seal your lips around their mouth.
 - Blow into the mouth until the chest rises.
 - Remove your mouth and allow the chest to fall.
- Repeat until help arrives or you physically cannot continue.

You're not dead till you're warm and dead! CPR is only not attempted when there is only a skeleton, the head is no longer attached to the body or there's severe decomposition.

CPR on children approximately 1-10 years

- Complete 5 rescue breaths: Always do this **FIRST** as their collapse is more likely to be a respiratory cause than a cardiac one.
 - Ensure the airway is open.
 - Fill your cheeks with air, seal your lips around the mouth and nose.
 - Blow gently until the chest rises.
 - Remove your mouth and allow the chest to fall.
- Complete 30 compressions at a rate of 100-120 per minute (about the speed of 'Nelly the Elephant'):
 - Place the heel of one hand in the centre of the chest.
 - Keeping your arms straight and your fingers off the chest, press down to around one-third the depth of the chest. Release the pressure, keeping your hand in place.
- After 30 compressions give 2 rescue breaths; repeat until help arrives or you physically cannot continue.

CPR on infants

- Complete 5 rescue breaths: Always do this **FIRST** as their collapse is more likely to be a respiratory cause than a cardiac one.
 - Ensure the airway is open.
 - Fill your cheeks with air, seal your lips around the mouth and nose.

- Blow gently until the chest rises.
- Remove your mouth and allow the chest to fall.
- Complete 30 compressions at a rate of 100-120 per minute (about the speed of 'Nelly the Elephant'):
 - Place two fingers in the centre of the chest.
 - Press down sharply to around one-third the depth of the chest. Release the pressure, keeping your hand in place.
- After 30 compressions give 2 rescue breaths; repeat until help arrives.

C = Circulation : Feel for pulses in the wrist (radial) and in the neck (carotid) and count for 30 seconds. The normal resting heart rate for an adult is 60-100 beats per minute but may be 40–60 beats per minute in very fit adults. The pulse rate in children is faster depending on their age. For up to date information consult websites such as those for the NHS or the British Heart Foundation. Is the skin hot, cold, clammy, dry?. What colour is the casualty?. Up to 2 seconds is normal for the **Capillary Refill Test**.

D = Disability : Assess the level of consciousness using the AVPU scale:

- A – Alert : Are the casualties eye open and do they respond to questions??.?
- V – Verbal : Not fully awake and only responds to verbal stimuli.
- P – Pain : Difficult to rouse and only responds to painful stimuli.
- U – Unresponsive : Completely unconscious with no response.

E = Exposure / Environment & Everything Else = Secondary Survey

Secondary survey

A focused history and physical exam should be performed after the initial assessment. It is assumed that the life threatening problems have been found and corrected. **If that process involved CPR you may not get to this stage.**

At any time during the Secondary Survey the casualty has no cardiac output go straight to CPR

Aim: to detect and treat 'everything else'.

In KSAR we use the acronym SAMPLE see below.

- S – Signs/Symptoms (Symptoms are important but they are subjective.)
- A – Allergies
- M – Medications
- P – Past Pertinent medical history

- L – Last Oral Intake (Sometimes also Last Menstrual Cycle.)
- E – Events Leading Up To Present Illness / Injury

Main elements:

1) Vital signs monitoring 2) Top-to-toe survey

Vital signs monitoring:

The casualty is continuously monitored looking for a pattern, are they stable, getting worse, getting better?.

Top to toe survey:

The focused history and physical exam includes examination that focuses on specific injury or medical complaints, or it may be a RAPID examination of the entire body as follows, which should take no more than 3 minutes.

This is a systematic approach to identify any bleeding or fractures. This system starts at the head and works down to legs.

- Bleeding: Carry out a head to toe check for bleeding.
- Head & Neck: Clues to look out for are: bruising, swelling, deformity or bleeding (See Spinal Injuries).
- Shoulders & Chest: Place both hands on opposite shoulders, run them down comparing both sides of the body. (See Fractures & Dislocation).
- Abdomen & Pelvis: Place palm of hand onto abdomen and push gently checking for painful responses from patient.
- Legs & Arms: Using both your hands compare both arms and legs for fractures, dislocations, look also for medic alerts.
- Pockets: Look for clues, ID medical jewellery, such as medic alerts which might indicate any existing medical condition.
- Recovery Position: If patient is unconscious place them in the recovery position (see Recovery Position).

Wound care

Types of cut: Puncture, laceration, gunshot, stab/penetration and abrasion/graze.

Always wear disposable gloves.

Clean minor wounds to reduce risk of infection. Cover the cut with a sterile dressing, clean lint free material or a plaster.

To stop more severe bleeding, cover the wound and apply direct pressure; encourage the casualty to apply pressure themselves if appropriate. Where possible, elevate the bleeding site above the level of the heart for gravity's assistance. Most bleeding will stop within 10 minutes then dress the wound.

If blood soaks through the dressing add another dressing on top. DO NOT remove the first dressing.

Learn as much as possible about the circumstances of the injury to decide how dirty the wound might be, and whether there are any potential underlying injuries. This information will be useful in the handover to medical personnel.

If there is a large object in the wound do not remove it. Stop bleeding by applying firm pressure on either side of the object and raising above the heart if possible. Build up padding around the object until the padding is higher than the object, then bandage over the object without pressing on it.

Treat for shock if necessary.

Shock

Life threatening condition occurring when vital organs, such as the brain and heart, are deprived of oxygen due to a problem affecting the circulatory system – usually extensive bleeding.

Symptoms: Pale face, cold and clammy skin, fast and shallow breathing, rapid and weak pulse, yawning, sighing and in extreme cases unconsciousness.

Treat by lying the casualty down, raising their legs, loosening tight clothing and keeping them warm.

Hypothermia

When body temperature drops below 35C.

Symptoms: shivering, pale and cold and dry skin, disorientation, apathy or irrational behaviour, impaired consciousness, slow and shallow breathing and a slow and weakening pulse.

Treatment: replace wet clothes with dry. Re-warm slowly. If there are no other injuries, give warm (not hot) drinks and high energy foods such as chocolate.

If there has been prolonged exposure keep the casualty still until they return to normal temperature – they may need to be moved by stretcher – to avoid shock. In hypothermia warm blood is kept to the body's core and the limbs get cold. Movement encourages cold blood to circulate and may cause trauma in essential organs.

Stretcher carrying

You usually require at least six people, ideally with another six to swap regularly. Swap before you feel you need to so you remain fresh.

Casualty should be securely restrained before moving. Use blankets, clothing, or other material to pad the stretcher, protect the casualty from exposure and avoid further injury.

Unless absolutely necessary, lie casualties on their backs. It is preferable to walk with the casualty 'feet first'. The team medic should always be at the head end to monitor the patient. They are also in control of stretcher movement; it is on their command the stretcher is lifted or lowered.

The notes given above are by no means comprehensive and are not intended to be a replacement for training from an accredited organisation and they may not be up to date. Always check for the current advice from nationally recognised bodies and organisations.